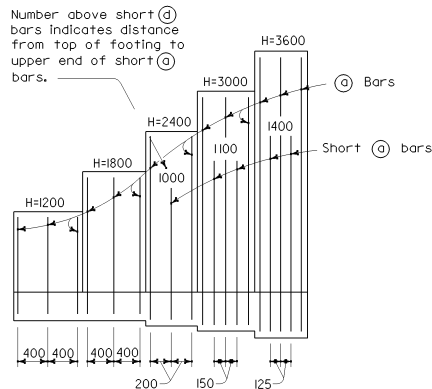


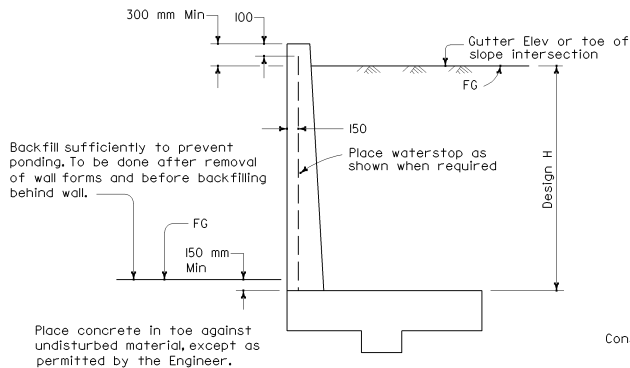
SPREAD FOOTING SECTION

NOTE

At (a) and Short (a) bars:
 $H \leq 1800$ mm, no splices are allowed within 500 mm above the top of footing.
 $H > 1800$ mm, no splices are allowed within $H/4$ above the top of footing.

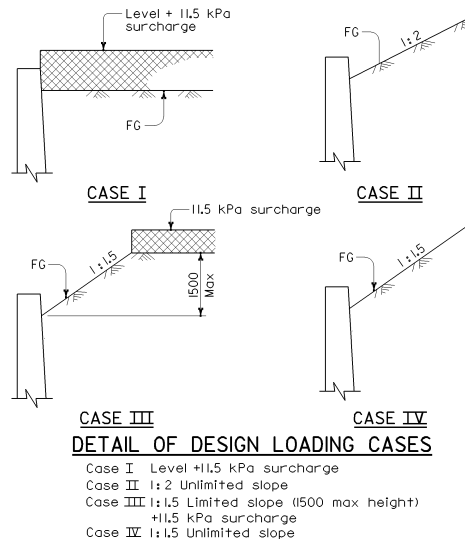


ELEVATION



DESIGN

For drainage notes and other details, see B3-8



CASE III

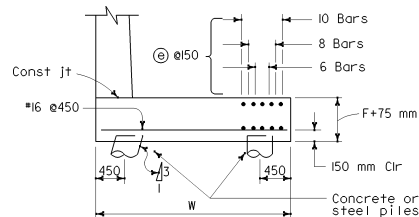
DETAIL OF DESIGN LOADING CASES
 Case I Level +11.5 kPa surcharge
 Case II 1:2 Unlimited slope
 Case III 1:1.5 Limited slope (1500 max height) +11.5 kPa surcharge
 Case IV 1:1.5 Unlimited slope

MAX PILE SPACING FOR 400 kN PILES

Design H	Front Row k3 Batter	Back Row Vertical
1200	5400	5400
1800	3600	5400
2400	2700	5400
3000	1800	3600
3600	1200	2400

For actual spacing, see Wall Layout.

Pile layout does not apply to Case IV conditions.



Reinforcement detailed is to be placed in addition to that shown for spread footings.

For Design H=1200 use W=1550
 All others from table

400 kN PILE FOOTING SECTION

NOTES

Design Conditions:

Design H may be exceeded by 150 mm before going to the next size. Special footing design is required where foundation material is incapable of supporting toe pressure loads listed in table.

Design Data:

$f_c = 10$ MPa $f_c = 25$ MPa $f_s = 168$ MPa $n = 10$ earth = 19 kN/m³
 Case I- Wall design for equivalent fluid pressure = 4.2 and 5.6 kPa/m.
 Case II, III, IV - Wall design is based on Rankine's formula with $\phi = 33^\circ 42'$.

TABLE OF REINFORCING STEEL, DIMENSIONS AND DATA

Design H	1200	1800	2400	3000	3600	
W	1250	1550	2000	2450	2900	
F Spread Ftg	400	400	450	450	550	
Batter	None	None	None	100:3	100:6	
(a) Bars	#16@400	#16@400	#16@400	#16@300	#16@250	
Short (a) Bars	None	None	#16@400	#16@300	#16@250	
(b) Bars	#16@400	#16@400	#16@200	#16@150	#16@125	
Total (e) Bars	8-#19	8-#19	10-#19	8-#19	6-#19	
Toe Pressure	Case I kPa	80	105	120	145	170
	Case II kPa	75	100	130	165	195
	Case III kPa	80	110	140	185	210
	Case IV kPa	95	155	200	255	310

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
RETAINING WALL TYPE 5

NO SCALE
 ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

B3-7



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
<p>REGISTERED CIVIL ENGINEER</p> <p>July 1, 2004</p> <p>PLANS APPROVAL DATE</p> <p>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</p> <p>To get to the Caltrans web site, go to: http://www.dot.ca.gov</p>					